

**REMARKS**

**I. Status of the Claims**

Claims 20-28 are pending. Claim 20 has been amended to further clarify the plurality of sectors define at least one passage that is substantially parallel to the inlet direction of the resin to be filtered. Support for this amendment can be found in the application as-filed, for example, at Figure 3.

Applicants respectfully acknowledge the Examiner's withdrawal of the Section 103 rejections of record.

**II. Rejection under 35 U.S.C. § 112, second paragraph**

The Examiner maintains the rejection of claim 27 under 35 U.S.C. § 112, second paragraph, as allegedly "being indefinite for failing to particularly point out and distinctly claim the subject matter" of the presently claimed invention. Office Action at 2.

Specifically, the Examiner contends that the limitation "wherein system of gears, or pulleys and gears subjects the at least one conducting element to a constant pull between 600 and 1500 m/min" is "a process limitation, which does not further limit the apparatus being claimed and provides no additional structural limitation to the apparatus." *Id.* The Examiner further concludes that "the limitation is an operational limitation . . . and thus, renders such a claim indefinite, regardless of whether one possessing ordinary level of skill in the pertinent art clearly understands such an operational limitation." *Id.* at 6.

Applicants respectfully traverse for at least the reason of record and for the reason that the limitation in question is, in fact, a structural limitation: it requires that the system of gears, or pulleys and gears, be configured within the apparatus in a manner such that a

constant pull between 600 and 1500 m/min is achieved. One of skill in the art would recognize that in order to achieve the claimed pull rate, thought must be given to the size, number, and placement of gears, or pulleys and gears, that will comprise the system of gears, or pulleys and gears. Thus, the limitation is not a process limitation but a structural one.

Moreover, Applicants respectfully submit that the Examiner cannot ignore the standard for indefiniteness as mandated by the M.P.E.P., which is whether the scope of the claim is clear to a hypothetical person possessing the ordinary level of skill in the pertinent art. See M.P.E.P. § 2171. Applicants respectfully submit that one of skill in the art would understand the scope of claim 27.

Accordingly, Applicants submit this rejection is in error and respectfully request its withdrawal.

**III. Rejections under 35 U.S.C. § 103(a)**

**A. Claims 20, 21, 23-25 and 28**

The Examiner rejects claims 20, 21, 23-25 and 28 under 35 U.S.C. § 103(a) as allegedly “being unpatentable over” U.S. 3,922,128 (“*Solomon*”) in view of U.S. 5,578,208 (“*Miki*”). Office Action at 2. Specifically, the Examiner asserts that *Solomon* teaches

an apparatus for the production of a cable having at least one covering layer, said apparatus comprising at least one charging hopper . . . , at least one extruder . . . , one extrusion screw . . . , and at least one extrusion head inside of which is contained a die . . . .

Office Action at 2-3. The Examiner admits that *Solomon* “does not teach the presence of a filter support plate nor a filtration unit in conjunction with the breaker plate.” *Id.* at 3. The

Examiner, however, cites *Miki* in an attempt to remedy the deficiencies of *Solomon*. The

Examiner asserts that

[i]n a method to filter molten resin for used in a manufacturing process of films or fabric made of polypropylene, polyester, and the like, *Miki*, et al. teach the use of a filtering device to remove foreign substances or impurities from the resin (column 1, lines 7-11). The filtering device is positioned downstream of the extruder (column 2, lines 18-20).

*Id.* Thus, the Examiner concludes that it “would have been obvious at the time of the Applicant’s invention to one of ordinary skill in the art to modify the extruding apparatus of *Solomon* with the filtration section or filtering device of *Miki*, et al. for the purpose of filtering out foreign matter from molten resin as it passes though the extruder as taught by *Miki*, et al.” *Id.* at 4.

Applicants respectfully traverse as the Examiner has not and cannot make a prima facie showing of obviousness. In order to establish a prima facie case of obviousness, the Examiner must show, among other things, that the reference or combination of references teaches or suggests all of the claim limitations. See M.P.E.P. § 2143. Specifically, the proposed combinations of the cited references at least fail to teach or suggest the presently claimed filter support plate.

As admitted by the Examiner, *Solomon* does not teach a filter support plate, since there is no filter. Office Action at 3. Applicants submit that *Miki* also, despite teaching a filter, does not teach a filter support plate but rather, teaches away from it. *Miki* states that due to *Miki*’s design, “it is no more necessary to use a porous plate which would be used in the conventional cylindrical filters in order to enhance the rigidity resisting to filtrating [sic] pressure.” *Miki* at col. 4, lines 23-26. *Miki* instead teaches a supporter comprising a

central shaft (8), a plurality of rods (7) that extend lengthwise the filtering member (1) and a plurality of rods (9) that are arranged at intervals along the lengthwise direction of the filtering member (1) and that are perpendicular to the central shaft, said rods 9 being associated with the rods 7. See, e.g., *Miki* at Figures 1 and 6. Alternatively, *Miki* teaches that the supporter (2) comprises a cylindrical element that is provided with a plurality of projections for supporting the filtering member. See, e.g., Figures 4 and 9. Thus the teachings of *Miki* reinforce its stated desire to move away from a filter support plate.

Neither *Solomon* nor *Miki* teach or suggest a filter support plate, generally, nor a filter support plate that meets all of the claim limitations, and thus, cannot be used to establish a prima facie case of obviousness over claims 20, 21, 23-25, and 28.

Moreover, *Miki* does not teach or suggest at least one passage for the filtered composition that is substantially parallel to the inlet direction of the composition to be filtered. See claim 20 as-amended. Rather, the filtered resin of *Miki*, as shown by, for example, Figures 1 and 13, moves in a direction that is substantially perpendicular to the inlet direction of the resin to be filtered. See, e.g., *Miki* at col. 9, lines 10-13, which states that "Molten resin passes through filtering member 1 in recessed portions 6 from the outside toward the inside. The thus filtrated molten resin advances to the passages formed in a filter center 10 to be discharged from the lower orifice 3." The molten resin flows parallel to the central cylindrical shaft 8. Figures 1. Thus, the resin to be filtered in *Miki* enters from the outside in (i.e., horizontally), but then flows top down (i.e., vertically), and thus perpendicular to each other.

Accordingly, for at least the foregoing reasons, Applicants submit this rejection is in error and respectfully request its withdrawal.

**B. Claim 22**

The Examiner rejects claim 22 as being allegedly “unpatentable over” *Solomon* in view of *Miki* and further in view of U.S. 5,182,066 (“*Marin*”). Office Action at 4. The Examiner admits that *Solomon* and *Miki* “do not teach that the extruder apparatus have a crosslinking unit.” *Id.* The Examiner, however, cites *Marin* to cure the deficiencies of *Solomon* and *Miki*, asserting that “[i]n a method to apply a layer of insulation around an electrical cable core, *Marin* teaches the use of an extruder apparatus. *Marin* also teaches that a cross-linking section may be used in which a cross-linking agent is added to the heated plastic and subsequently mixed (column 3, lines 39-40).” *Id.* (citing *Marin*). Thus, the Examiner concludes that it “would have been obvious at the time of the invention to one of ordinary skill in the art to modify the extruding apparatus of *Solomon* configured with the filtering device of *Miki* et al., to further incorporate the cross-linking section of *Marin* for the purpose of adding a cross-linking agent to the melted plastic.” *Id.*

Applicants respectfully traverse for at least the reason that the Examiner cannot established a prima facie showing of obviousness. As discussed above, the combination of *Solomon* and *Miki* does not teach or disclose all claimed elements as required under M.P.E.P. § 2143. *Marin* does not teach or suggest the filter support plate, as presently claimed, and, thus, cannot remedy the deficiencies of *Solomon* and *Miki* discussed above, and cannot render claim 22 obvious.

Accordingly, Applicants submit this rejection is in error and respectfully request its withdrawal.

**C. Claim 26**

The Examiner rejects claim 26 as being allegedly “unpatentable over” *Solomon* in view of *Miki* and further in view of U.S. 4,673,540 (“*Portinari*”). Office Action at 5. The Examiner admits that *Solomon* and *Miki* “do not teach that the extruder have a system of pulleys, gears or pulleys and gears.” *Id.* The Examiner, however, cites *Portinari* to cure the deficiencies of *Solomon* and *Miki*, asserting that in “a method to cover an optical cable with plastic having helical grooves in its surface, Portinari teaches the use of a pulley mounted to freely rotate on a support extending from a shaft driven by a gear to advance the cable into and out of the extruder (column 4, lines 25-26).” *Id.* (citing *Portinari*). Thus, the Examiner concludes that “It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the extruding apparatus of Solomon and Miki, et al. with the system of pulleys and gears of Portinari for the purpose of moving the cable through the production line at a constant pace.” *Id.*

Applicants respectfully traverse for at least the reason that the Examiner cannot established a prima facie showing of obviousness. As discussed above, the combination of *Solomon* and *Miki* does not teach or disclose all claimed elements as required under M.P.E.P. § 2143. *Portinari* does not teach or suggest the filter support plate, as presently claimed, and, thus, cannot remedy the deficiencies of *Solomon* and *Miki* discussed above, and cannot render claim 26 obvious.

Accordingly, Applicants submit this rejection is in error and respectfully request its withdrawal.

**D. Claim 27**

The Examiner rejects claim 27 as being allegedly “unpatentable over” *Solomon* in view of *Miki* and further in view of *Portinari*, and further in view of “Extruding Plastic, A practical processing handbook”, 1998 (*Rosato*). Office Action at 5. The Examiner admits that *Solomon*, *Miki*, and *Portinari* “do not teach that the cable is subjected to a pull of between 600 and 1500 m/min, respectively.” *Id.* The Examiner, however, cites *Rosato* to cure the deficiencies of *Solomon*, *Miki*, and *Portinari*.

The Examiner asserts that *Rosato* “teaches that typical output rates of extruders for coating cable can be at least 1300 m/min for certain products, which is within the range stated above by the Applicant.” *Id.* at 5-6. Thus, the Examiner concludes that it “would have been obvious therefore, to modify the extruder of *Solomon* with the filtration unit of *Miki*, et al. to further incorporate the pulleys/gears of *Portinari* to operate such a system of pulleys/gears within the range of 600 and 1500 m/min for the purpose of controlling the output rate of the extruder and its associated equipment as discussed by *Rosato*.” *Id.* at 6.

Applicants respectfully traverse for at least the reason that the Examiner cannot established a prima facie showing of obviousness. As discussed above, the combination of *Solomon*, *Miki*, and *Portinari* does not teach or disclose all claimed elements as required under M.P.E.P. § 2143. *Rosato* does not teach or suggest the filter support plate, as presently claimed, and, thus, cannot remedy the deficiencies of *Solomon*, *Miki*, and *Portinari* discussed above, and cannot render claim 27 obvious.

Accordingly, Applicants submit this rejection is in error and respectfully request its withdrawal.

**IV. CONCLUSION**

In view of the foregoing remarks, Applicants respectfully request the reconsideration of the pending claims and the timely allowance of the pending claims.

If the Examiner believes a telephone conference could be useful in resolving any of the outstanding issues, he is respectfully urged to contact Applicants' undersigned counsel at 202-408-4368.

If there is any fee due in connection with the filing of this Preliminary Amendment, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

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